



MATERIAL GROUP	HARDNESS HRC		Size (mm)								
			3.0	4.0	5.0	6.0	8.0	10.0	12.0	16.0	
<b>P</b>	13 14	< 35	$v_c$ (m/min)	125	135	144	149	151	158	155	158
			$n$	13240	10720	9180	7900	6000	5040	4120	3100
			$f_z$	0.006	0.01	0.012	0.014	0.019	0.023	0.022	0.023
			$f$ (mm/min)	340	420	430	430	460	460	360	280
<b>H</b>	15 16	35-45	$v_c$ (m/min)	81	86	91	95	96	103	105	106
			$n$	8560	6820	5800	5040	3800	3280	2780	2100
			$f_z$	0.008	0.011	0.016	0.018	0.024	0.027	0.029	0.027
			$f$ (mm/min)	260	300	360	360	360	360	320	230
	15 16	45-55	$v_c$ (m/min)	50	54	60	62	63	63	63	64
			$n$	5280	4300	3800	3280	2520	2020	1680	1280
			$f_z$	0.006	0.008	0.011	0.013	0.017	0.021	0.021	0.022
			$f$ (mm/min)	130	140	170	3280	170	170	140	115
<b>K</b>	31 32 33 34		$v_c$ (m/min)	125	135	144	149	151	158	155	158
			$n$	13240	10720	9180	7900	6000	5040	4120	3100
			$f_z$	0.006	0.01	0.012	0.014	0.019	0.023	0.022	0.023
			$f$ (mm/min)	340	420	430	430	460	460	360	280
< HRc45											
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$v_c$  - cutting speed (m/min)  
 $n$  - RPM (rev/min)  
 $f_z$  - feed rate (mm/tooth)  
 $f$  - feed rate (mm/rev)  
 $z$  - No. of teeth  
 $a_p$  - axial depth of cut  
 $a_e$  - radial depth of cut

To calculate RPM from cutting speed:  $n = \frac{v_c \times 1000}{\pi \times \phi}$

To calculate cutting speed from RPM:  $v_c = \frac{n \times \pi \times \phi}{1000}$

All recommendations are based on ideal machining conditions. Adjustments may need to be made according to your set-up. The recommendations for speeds, feeds and other parameters presented in this chart are nominal recommendations and should be considered only as good starting points.